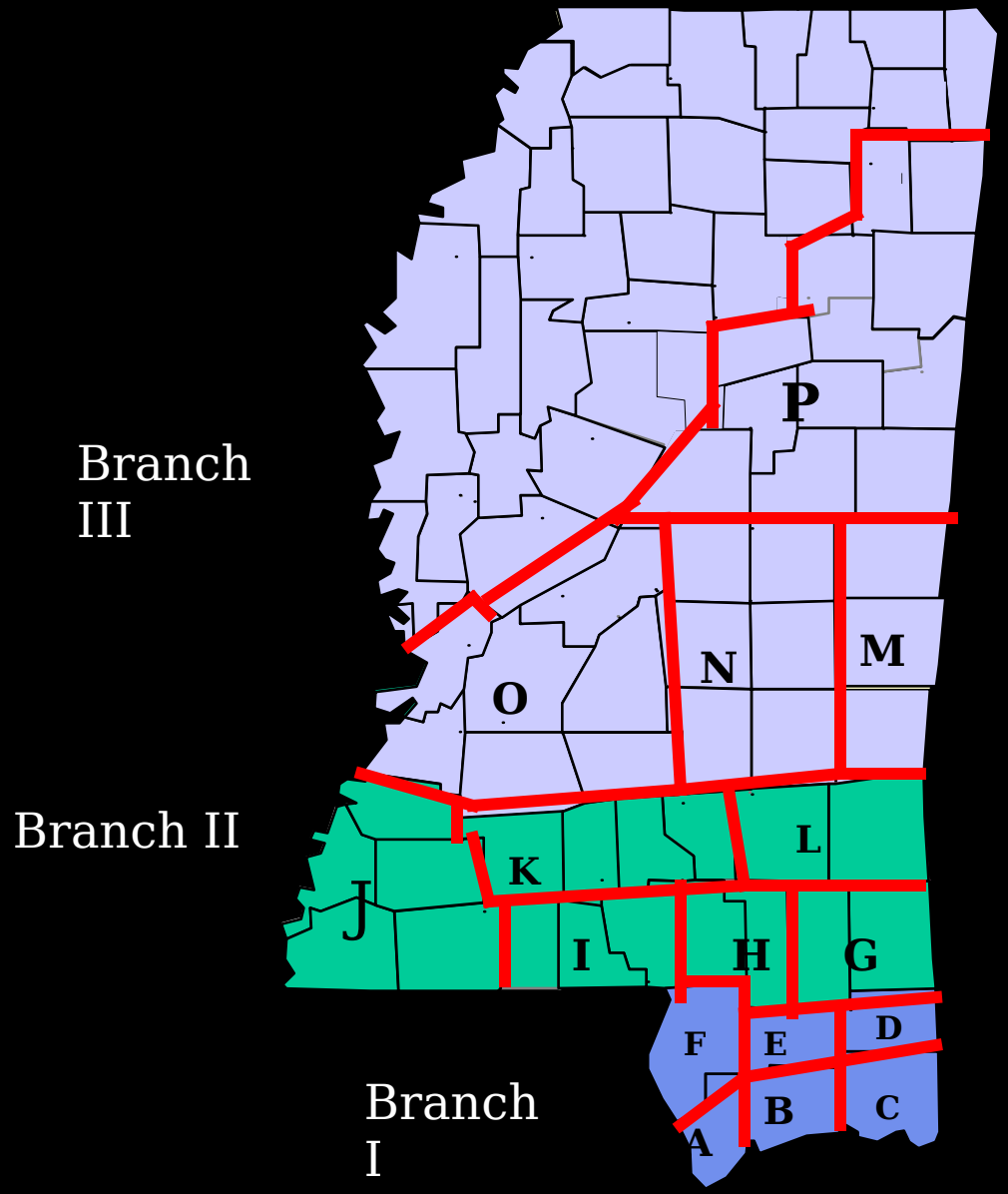
Jasper Welsch

Mississippi Emergency Management Agency

Katrina Unified Command Structure

- 3 Geographic branches and 16 divisions
- MEMA & FEMA Division Supervisors co-located with county emergency management directors



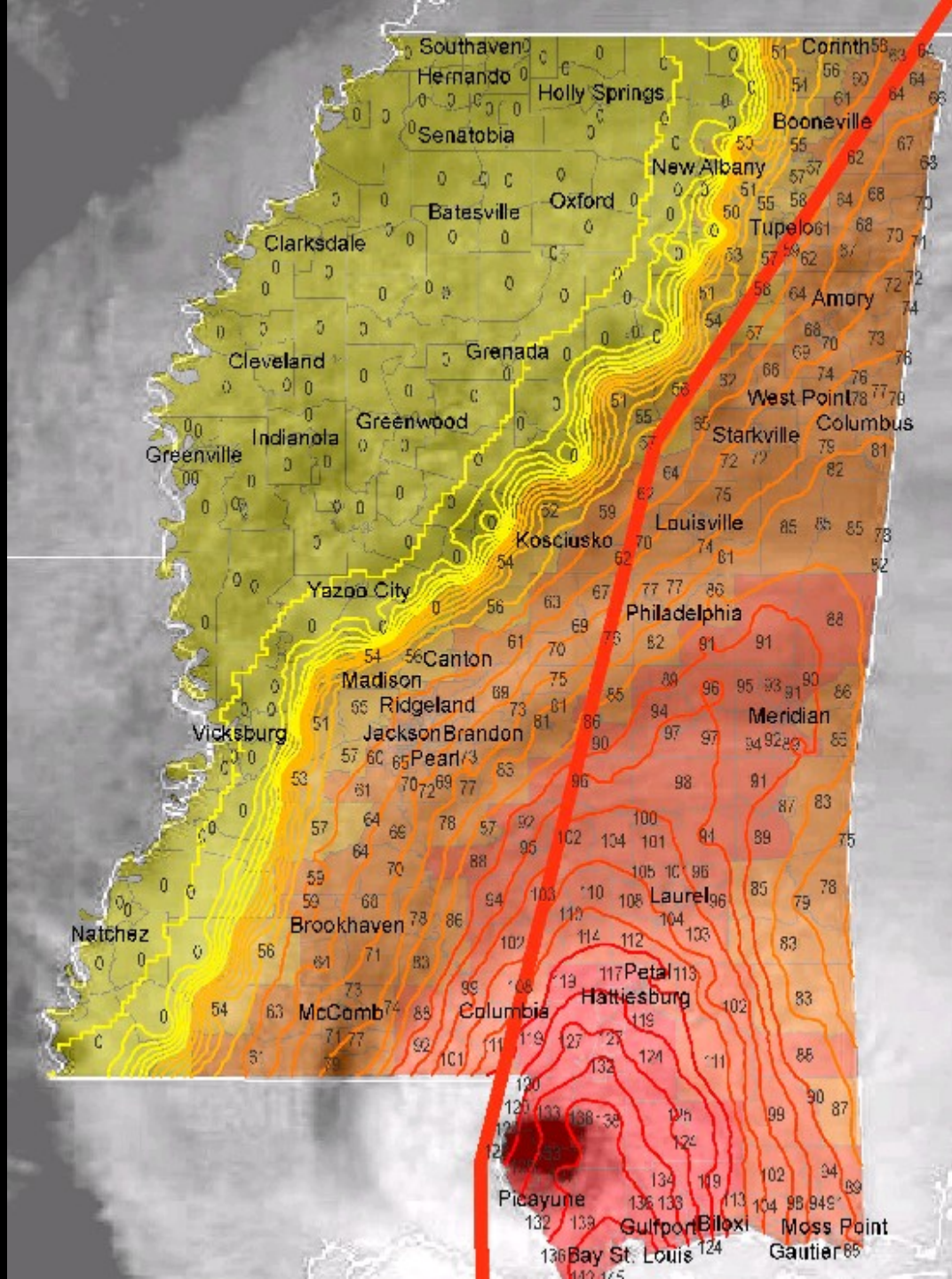
Hurricane Katrina

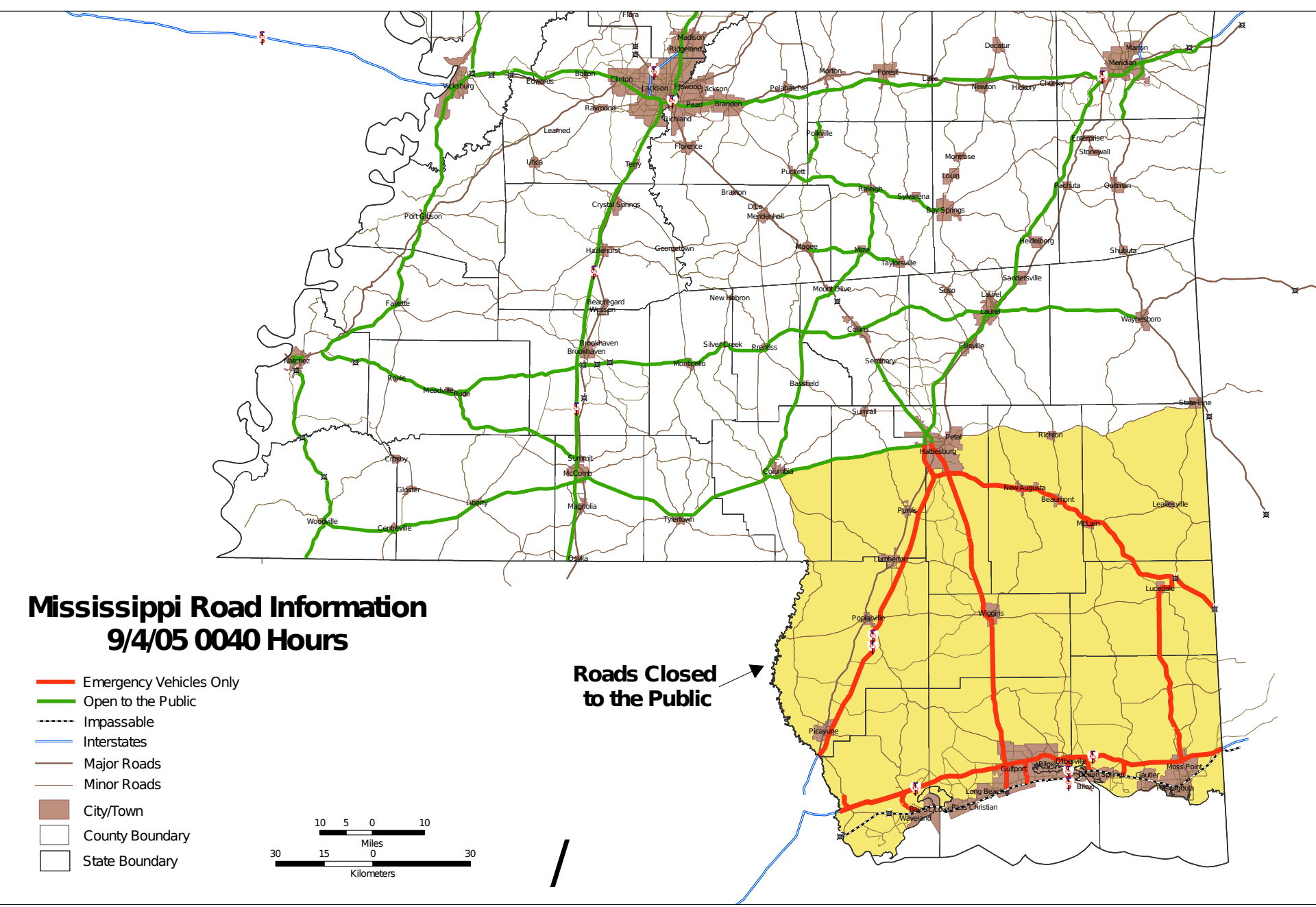
Landfall: August 29, 2005

Intensity: Category III

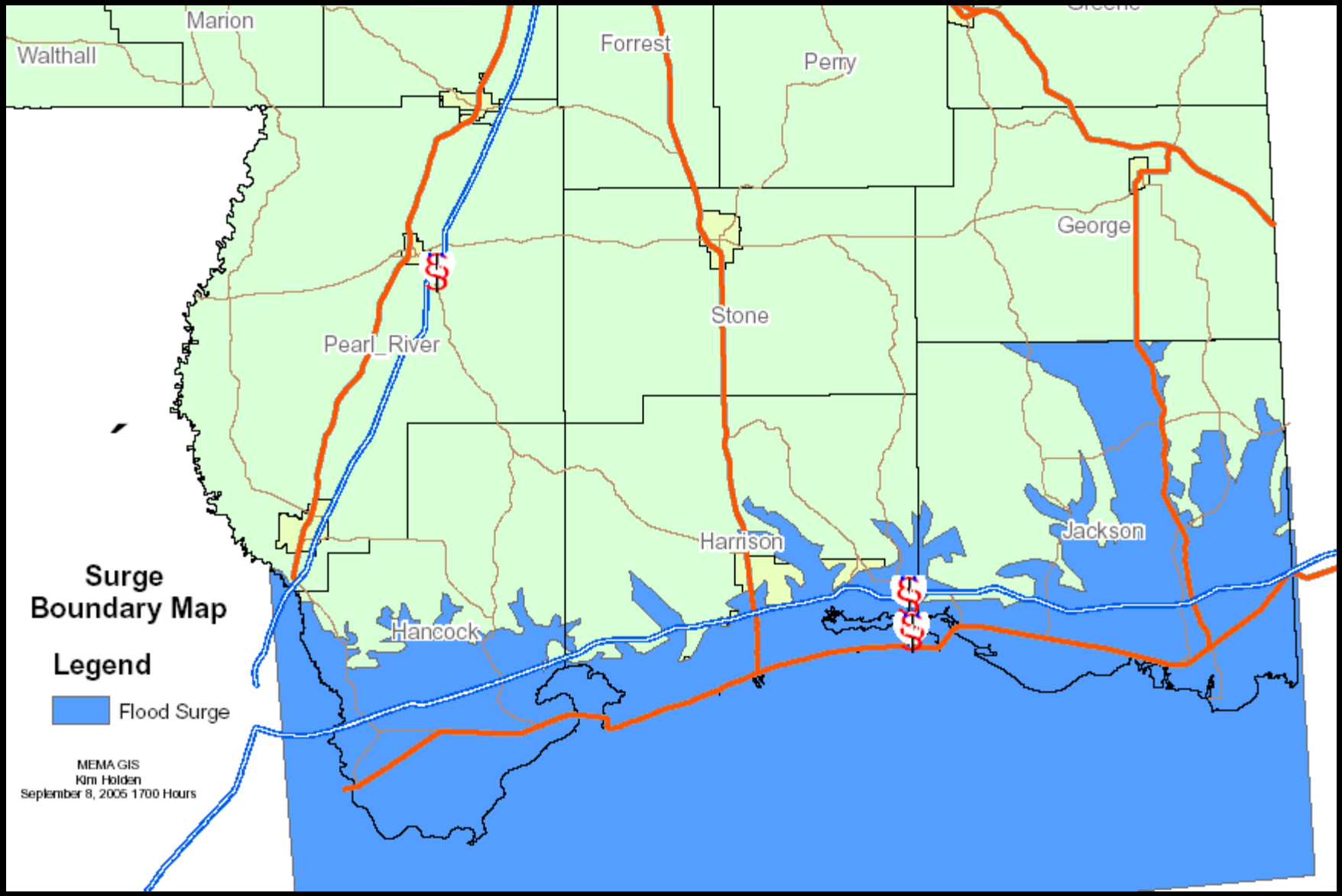
- Wind gusts up to 155+ mph
- Storm Surge 15 to 35+ feet
- Rainfall 5 to 15 inches

1.36 Million w/o Drinking Water




Mississippi Road Information
9/4/05 0040 Hours
Emergency Vehicles Only
Open to the Public
Impassable
Interstates
Major Roads
Minor Roads
City/Town
County Boundary
State Boundary
10 5 0 10
Miles
30 15 0 30
Kilometers
Roads Closed to the Public
Flora
Madison
Ridgeland
Vicksburg
Edwards
Bolton
Clinton
Jackson
Byram
Pearl
Brandon
Raymond
Richland
Learned
Florence
Terry
Utica
Decatur
Morton
Forest
Lake
Newton
Hickory
Chunky
Meridian
Marion
Pelahatchie
Polkville
Enterprise
Stonewall
Montrose
Louin
Purkett
Raleigh
Sylvarena
Bay Springs
Bassfield
Quitman
Shubuta
Heidelberg
Taylorsville
Sandersville
Soso
Laurel
Waynesboro
Mount Olive
Collins
Ellisville
Seminary
Sumrall
Petal
Hattiesburg
Richton
Columbia
New Augusta
Beaumont
Leakesville
McLain
Purvis
Lumberton
Lucedale
Wiggins
Poplarville
Picayune
Gulfport
Biloxi
Ocean Springs
Gautier
Moss Point
Pascagoula
Long Beach
Pass Christian
Waveland
Bay St. Louis
Diberville
Port Gibson
Crystal Springs
Brandon
Dixie
Mendenhall
Georgetown
Hazlehurst
Magee
Mize
New Hebron
Beauregard
Wesson
Fayette
Natchez
Brookhaven
Silver Creek
Prentiss
Monticello
Roxie
Meadville
Bude
Crosby
Summit
McComb
Gloster
Liberty
Magnolia
Tylertown
Woodville
Centreville
Osyka
Tallahala
Stateline

70
40
59


Marion
Walthall
Forrest
Perry
George
Stone
Pearl_River
Harrison
Jackson
Hancock
Surge
Boundary Map
Legend
Flood Surge
MEMA GIS
Kim Holden
September 8, 2005 1700 Hours

EXIT 16
Diamondhead
EXIT ONLY

DIGITALGLOBE

Biloxi-Ocean Springs Bridge: Before Hurricane Katrina

QuickBird 60-cm Natural Color imagery
April 12, 2005

DIGITALGLOBE

Biloxi-Ocean Springs Bridge: After Hurricane Katrina

QuickBird 60-cm Natural Color imagery
August 31, 2005

DIGITALGLOBE

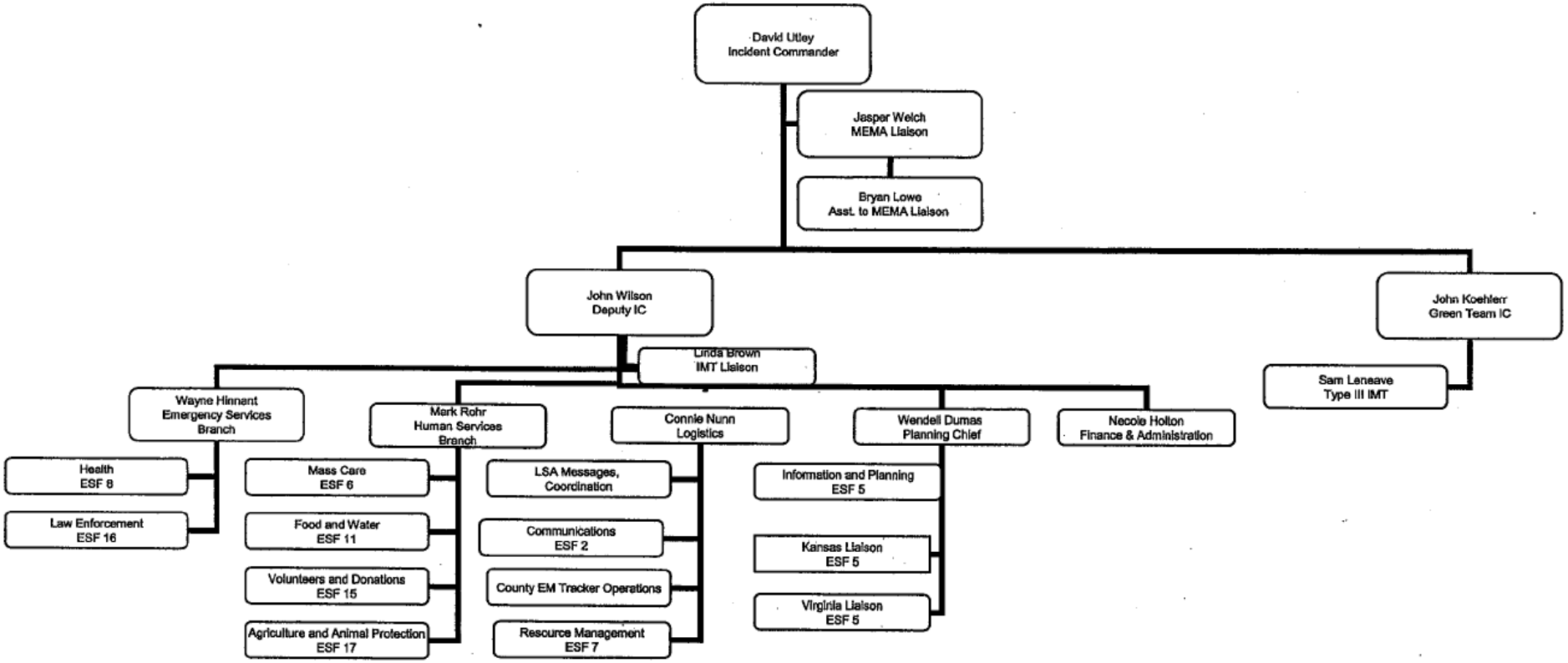
Long Beach: Damage to Residential Areas

QuickBird Natural Color Image
August 31, 2005

Unified Command

- More than one agency with incident jurisdiction or incidents cross political jurisdictions
- Agencies work together to establish a common set of objectives and strategies and a single Incident Action Plan

Florida Area Command



Florida *Tracker*

- Allowed FL Area Command and FL SEOC to communicate electronically with IMTs in the field.
- All orders for 6 Southern Counties were placed through *Tracker.*

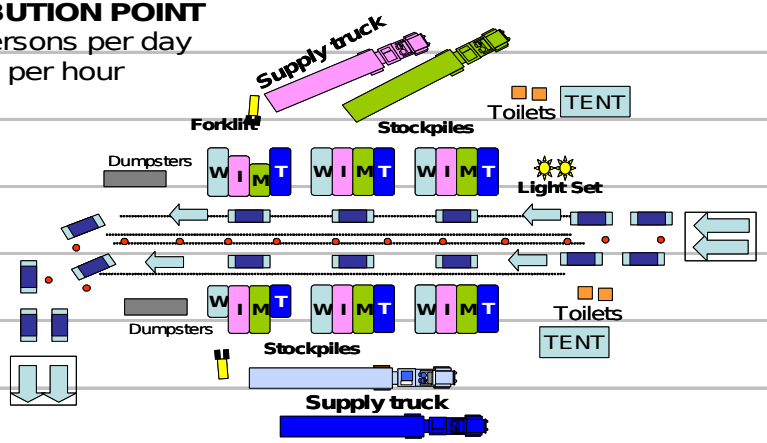
OPTION 2: ALTERNATE USE OF TYPE II SITES

Reduce by HALF for TYPE II SITES

TYPE II - DISTRIBUTION POINT

Serves 10,000 persons per day

280 vehicles per hour



Note: Individual vehicles drive through and Ice & water is loaded into their trunks. Recommend One case water, 2 or 3 bags of ice per vehicle and 6 MRE's

Supply trucks for Ice, Water, MRE's and Tarps are to be off-loaded promptly and returned for re-supply.

Maximum Loads per Day – Type II	
Water	2
Ice	2
MRE	1
Tarp	1

Figure 5

HUMAN RESOURCES and LOGISTICS SUPPORT

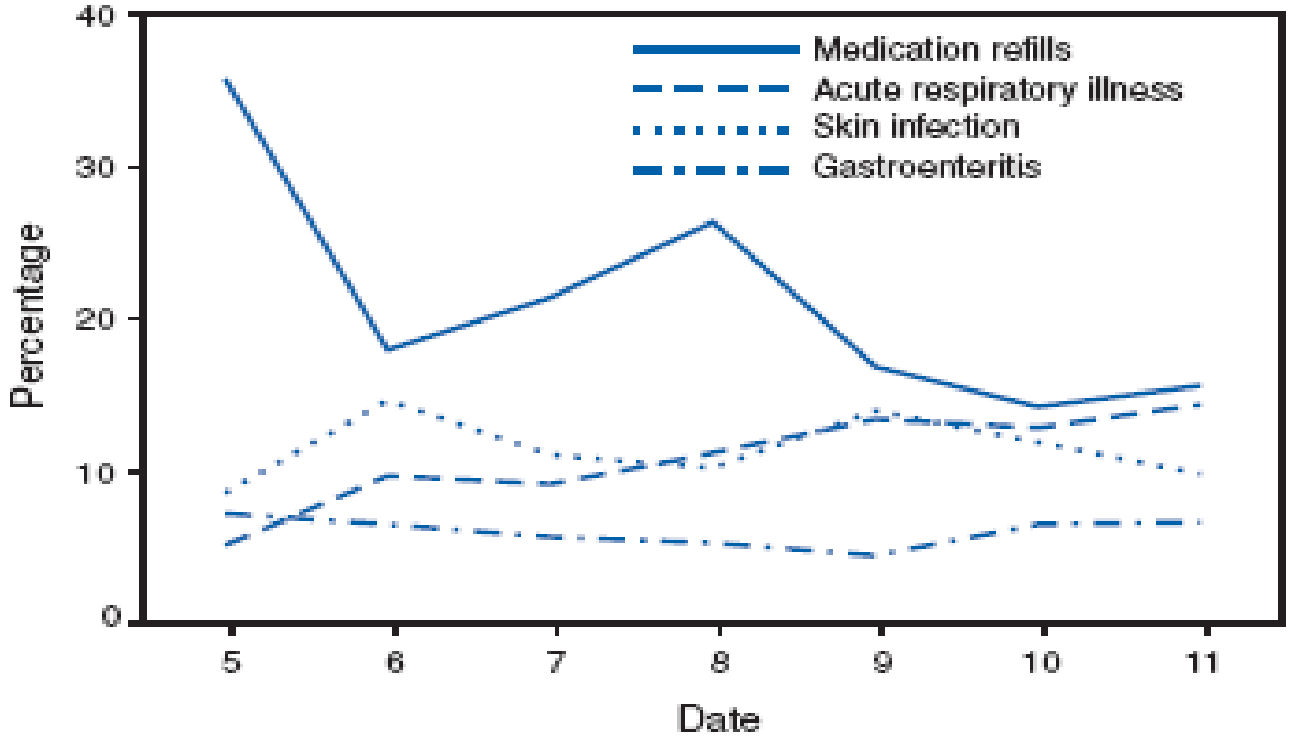
20.0	Sites

TYPE II DISTRIBUTION POINT

Manpower	Day	Night	Equipment	Each
LOCAL STAFFING REQUIREMENT			2-Way Radios	40
Team Leader	40	-	Forklifts, 4000 #	40
Forklift Operator	40	20	Pallet Jacks	40
Laborers	560	60	Traffic Cones	300
SUB-TOTAL	**601**	**80**	Light Sets, 4000 Watt	20
Law Enforcement	40	20	Toilets, or Porta Potties	80
Community Relations	40	0	Tents (20x40)	40
GRAND TOTAL	**681**	**100**	Dumpsters, 30 Cu Yd.	40

WAFFLE
HOUSE

FIGURE 1. Percentage of total visits for selected illnesses and medication refills after Hurricane Katrina, by date of visit — three counties,* Mississippi, September 5–11, 2005



* Reported by emergency departments and Disaster Medical Assistance Teams sites in Hancock, Harrison, and Jackson counties; the number of facilities reporting varied daily.

Source: CDC *MMWR* Weekly, Vol.55 N

Lessons Learned

- The Water Sector needs a robust Mutual Aid Network!
  - SMAC & EMAC don’t cover PNPs.
  - Permanent Work is at Cost Share
  - Issues of cost and reimbursement must be settled before responding.
- FEMA does not and will not

Lessons Learned

The Incident Command System is a Process, and Engineers and Public Works Professionals understand the importance of Process!

ESF 3

Mississippi ESF 3 has been re-written

- Lead Agency is the MS Military Dept
- Greater integration between different Primacy Agencies
- Greater Role for Support Agencies and Non-Governmental Organizations

Disaster Reservist Program

Purpose

- To provide MEMA with a corps of trained and experienced employees who can be activated on an “as needed” basis to meet staffing needs during critical periods. Reservists will be contract employees of MEMA and can be paid from the Disaster Trust Fund upon activation. (33-15-107)

Disaster Reservist Program

Logistics

- November 15 – 16, 2006 Logistics Drill at SEOC with MEMA regular employees, reservists, Military Dept, and other State Agencies.
- Paperwork from Purchase to Delivery
- 10 Reservists brought 370 years Experience

Lessons Learned

- People will die in a short period of time without clean, safe drinking water.
- It is much easier to move drinking water in pipes than on pallets!

You can never be Overwhelmed,
You can only fail to Prioritize!

You can Always do Something!

Questions?

Jasper Welsch
Mississippi Emergency Management Agency
601.352.9100